Exercises - Problems Sheet # 7:
Search & Sort Algorithms
Spring 2024

No. Of Questions: 5   **No. Of Pages: 1**

Answer the following:

1. Write a function that takes an array of integers and tells whether it is sorted or not.

2. Modify the bubble sort function to check at the end of each pass whether any swaps have been made. If none has been made, then the data must already be in the proper order, so the function should terminate. If swaps have been made, then at least one more pass is needed.

3. Rewrite the linear search algorithm recursively.

4. Create a text-based, menu-driven program that allows the user to choose whether to calculate the mean, the mode, or the median of an array. The program should then perform the appropriate calculation and display the result.

5. Write a function "replace" which takes a string as a parameter. It should replace all the spaces in that string by minus signs, and then counts and prints the number of spaces it replaced.

With our best wishes;